

# Race and Mental Health among Adults with Opioid Use Disorder



## Background

### Mental Health for Adults with Opioid Use Disorder

- Depression and anxiety are critical risk factors for overdose and suicidal behavior among adults with Opioid Use Disorder (OUD).<sup>1</sup>
- Despite increasing rates of opioid and suicide related deaths among Black Americans, there is minimal understanding of how mental health and suicidal behaviors differ between White and Black Americans with OUD.
- This study explores differences in depression and anxiety symptoms and suicidal behaviors by symptom severity and race among a community-based sample of White and Black people with OUD.

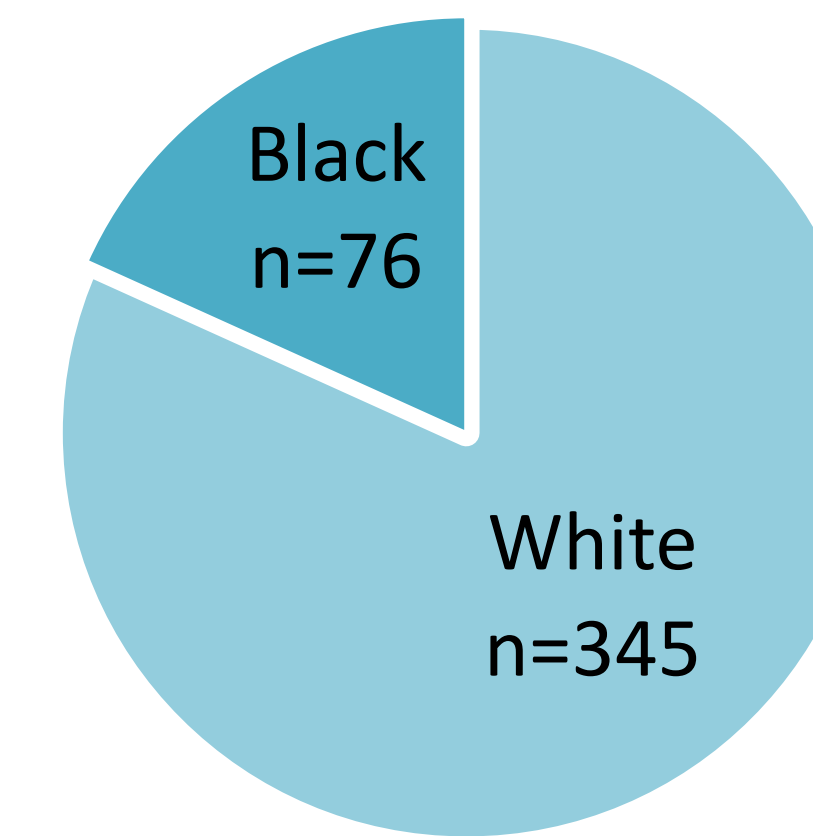
## Methods

- We analyzed baseline data from Black and White individuals enrolled in a digital intervention to support adults with OUD in recovery in the Midwest.
- Participants completed an online survey on depression (PHQ-9) and anxiety symptoms (GAD-7), past 30-day suicidal ideation (SI), and lifetime suicide attempts (SA).
- Pearson's chi-squared tests and t-tests were used to compare outcomes in each group overall and stratified by depression and anxiety severity.
- Optimal scale cut points were ascertained separately for each group using receiver operating curves (ROC).

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## Results

- N= 422 participants**
- Whites had higher depression (mean: 9.1, standard deviation (SD): 6.6) and anxiety (mean: 8.6, SD: 6.4) scores than Blacks (mean: 6.8, SD: 6.4 and mean: 6.4, SD: 5.9, respectively;  $p = 0.01$  for depression and  $p = 0.01$  for anxiety).
- Whites reported higher levels of moderate or severe depression (42%) and anxiety symptoms (39%), compared to Blacks (28% and 25%, respectively;  $p = 0.03$  for depression and  $p = 0.02$  for anxiety).
- Past 30-day SI and lifetime SAs were similar between Whites and Blacks (Whites: 13% SI and 41% SA; Blacks: 18% SI and 43% SA).



### Stratifying by Depression and Anxiety Severity

- A larger proportion of Blacks with moderate or severe depression (38.1%) and anxiety (36.8%) endorsed SI compared to Whites (23.2% and 22.9%, respectively)
- A larger proportion of SA was reported among Blacks with moderate or severe depression (66.7%) and anxiety (57.9%) compared to Whites (44.8% and 44.7%, respectively).
- ROC curves supported the high predictive ability of the PHQ-9 and GAD-7 to identify past 30-day SI. Area under the curve (AUC) values did not meaningfully differ by race, while optimal cut-off points did.

		All	Whites (n = 345)	Blacks (n = 76)
PHQ-9 <sup>1</sup>	AUC	0.78	0.78	0.80
	Optimal cut point (Sensitivity = Specificity)	11	12	9
GAD-7 <sup>1</sup>	AUC	0.72	0.73	0.73
	Optimal cut point (Sensitivity = Specificity)	10	11	7

<sup>1</sup>A cut-off point at 10 is applied for PHQ-9 and GAD-7 (minimal to mild (<10) vs. moderate to severe (≥10)).

## Key Findings

- We found no significant differences in suicidal behaviors by race.
- When stratifying prevalence of suicidal behavior by level of symptom severity, we found no significant differences by race; the proportion of Blacks with moderate or above depression and anxiety symptoms and with suicidal behaviors was higher than Whites.
- The optimal cut-off scores for PHQ-9 and GAD-7 indicating past 30-day SI differed between Blacks and Whites

## Conclusions

- ROC analyses suggest that the recommended cut-point for moderate-severe depression and anxiety symptoms may be too low to accurately classify Whites reporting past 30-day SI and too high for Blacks with OUD.
- Alone, mental health symptom severity and total scores may not be ideal indicators of suicide risk.
- Mental health screenings plus suicide risk evaluations are recommended for OUD patients, especially Black patients.
- Future studies may test the viability of different cut-off scores in indicating suicidal behaviors and with larger samples of racially diverse patients.

### References

- Conway, K. P., Compton, W., Stinson, F. S., & Grant, B. F. (2006). Lifetime comorbidity of DSM-IV mood and anxiety disorders and specific drug use disorders: results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Journal of Clinical Psychiatry*, 67(2), 247-257.